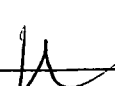


Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet









Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : HIGH AFT X-TUBE 412
Job Number : 30189	
Estimate Number : 10559	
P.O. Number :	Part Number : D412664203
This Issue : 05/01/2007 S.O. No. :	Drawing Number : D412-664-243 REV C
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LANDING GEAR	Drawing Revision : C
Previous Run : 30188	Material :
Written By : 	Due Date : 15/02/2007 Qty: 1 Um: Each
Checked & Approved By :	
Comment : Est Rev:E 04.02.16 Reformat; Added D3189-1 K/DS Est Rev:F 06-03-29 Remove Coments on Pick List JLM est rev G 06.12.08 per ECN 886 EC	

Additional Product

Job Number:



Scanned

Seq. #:	Machine Or Operation:	Description :
1.0	DC	DOCUMENT CONTROL
		
Comment: DOCUMENT CONTROL Photocopy bluefile and create labels as per PPP D412-664-203 CHG 005		
2.0	D6009129	Crosstube Material
		
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part number Description Batch 1 D6009-129 Crosstube <u>25668</u> Check OD = 3.500"; ID = 2.250"		
3.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
		
Comment: MORI SEIKI CNC LATHE LARGE 1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA166 2-Turn first side as per Folio FA166 3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243.		
4.0	QC1	INSPECT ALL DIM TO DIM SHEET
		
Comment: INSPECT ALL DIM TO DIM SHEET		

MS 07/01/06

36 07.01.10 1

36 07.01.10 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA166

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243.

3- Remove sand and plugs

4-Scribe part # and batch # using vibrating stylus as per Dwg D412-664-243
engrave on outside of tube)

Inside of Cuff(Donot

BC 07.01.10 1

6.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

BC 07.01.10 1

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SA 07.01.10 1

8.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

DP/JB 7-1-12 ①

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

DP

2-1-12

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

DP/JB 7-1-12 ①

11.0

QC3/5

INSPECT WORK/WING WALK



Comment: Inspect work & Chemical conversion Coat

BC 07-1-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:	Machine Or Operation:	Description :
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12.0

BENDING

BENDING MACHINE



Comment: BENDING MACHINE

Bend tube as per Dwg D412-664-243 using CNC bender program 412-af and Folio FT010

DP/EZ 7-3-1
P10

13.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

14.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551

2-Ream hole to finish size in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes.

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

16.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

17.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

18.0

OUTSIDE SERVICE

OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 038 Or




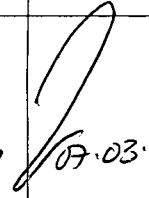
Issue P/O: _____ LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-03-08	12.0	Tube was over bent in the mid section, and then over bent on the bottoms. Tube will not fit rig at all. No good for installation.	 07/03/08	Scrap & destroy	ET 07-04-25	 07-04-25	 07/03/08	 07-03-08

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

19.0	PACKAGING 1	PACKAGING RESOURCE #1
------	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Inspect for transit damage

Ensure copy of NDT results attached to work order.

20.0	QC5	INSPECT WORK TO CURRENT STEP
------	-----	------------------------------



Comment: Inspect for damage & ensure results are as per Dwg D412-664-203

21.0	SPRAY PAINTING	SPRAY PAINTING
------	----------------	----------------



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

22.0	QC14	Inspect Spray Paint
------	------	---------------------



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

23.0	D2856600	Abrasion Strip
------	----------	----------------



Comment: Qty.: 1.7640 f(s)/Unit Total : 1.7640 f(s)

Pick:

Qty	Part number	Description	Batch
-----	-------------	-------------	-------

2	D2856-600(Cut to 10.090")	Abrasion Strip	
---	---------------------------	----------------	--

24.0	D28961	Support
------	--------	---------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty	Part number	Description	Batch
-----	-------------	-------------	-------

1	D2896-1	Support	
---	---------	---------	--

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

D31891

Chafing Shield



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D3189-1 Chafing Shield _____

26.0

MS2192028

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part number Description Batch

4 MS21920-28 Clamp _____

27.0

MS2192032

clamp(per MIL-DTL-8783C)



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

clamp(per MIL-DTL-8783C)

batch: _____

28.0

D2732

Rubber Extrusion



Comment: Qty.: 1.0290 f(s)/Unit Total : 1.0290 f(s)

Rubber Extrusion

Cut qty 2 5.80" long

qty part # description batch

2 D2732-058 rubber cushion _____

29.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Assemble as per Dwg D412-664-203

Instal support with magnobond 6398 per dwg D412-664-203,
cure for 12hrs before packaging.

Time & date of application: _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

30.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

31.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Pick Packing Kit

32.0

AN640A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Bolt
Batch: _____

33.0

AN641A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Bolt
Batch: _____

34.0

AN960JD616

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)
Washer
Batch: _____

35.0

MS21042L6

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)
Nut
Batch: _____

36.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 05/01/2007 11:30:43 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30189

Part Number: D412664203

Job Number:



Seq. #:

Machine Or Operation:

Description :

37.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-664-203

*****Ensure tube is not packaged if curing time is less than 12 hrs, see step 27 for application time & date

Time & date of packaging: _____

Location: _____

PPP Rev: _____

38.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U A 0625

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 3089
Description: Crosstube Assembly (412 High Aft)	Part Number: D412-664-243
Inspection Dwg: D412-664-243 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.684	+0.005/-0.000	2.688 ✓			
	2.748	+0.005/-0.000	2.752 ✓			
	2.884	+0.005/-0.000	2.888 ✓			
	3.019	+0.005/-0.000	3.023 ✓			
	3.163	+0.005/-0.000	3.167 ✓			
	3.308	+0.005/-0.000	3.312 ✓			
	3.429	+0.005/-0.000	3.433 ✓			
	2.990	+0.005/-0.000	2.993 ✓			
	2.618	+0.005/-0.000	2.622 ✓			
	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	R0.500	+/-0.010	.500 ✓			
	4.971	+/-0.001	4.971 ✓			
SIDE B	2.684	+0.005/-0.000	2.688 ✓			
	2.748	+0.005/-0.000	2.752 ✓			
	2.884	+0.005/-0.000	2.888 ✓			
	3.019	+0.005/-0.000	3.023 ✓			
	3.163	+0.005/-0.000	3.167 ✓			
	3.308	+0.005/-0.000	3.312 ✓			
	3.429	+0.005/-0.000	3.433 ✓			
	2.990	+0.005/-0.000	2.992 ✓			
	2.618	+0.005/-0.000	2.622 ✓			
	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	R0.500	+/-0.010	.500 ✓			
	4.971	+/-0.001	4.971 ✓			
	124.09	+/-0.020	124.09 ✓			

Measured by: BG	Audited by: SA	Prototype Approval:	N/A
Date: 07.01.10	Date: 07.01.10	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.06.16	New Issue (P/O D412-664-203)	KJ/JLM	
B	06.03.09	Dwg Rev updated	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

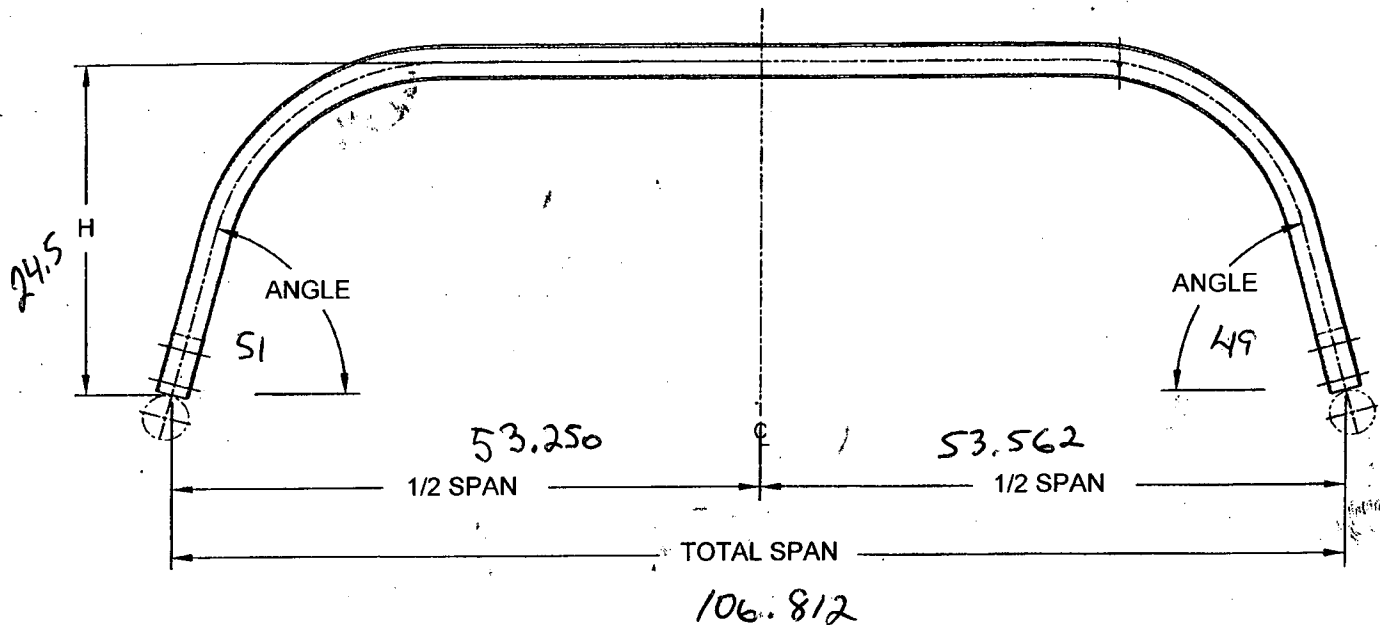
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QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Crosstube Bend Dimension Sheet



PART NUMBER: 412664203

BATCH NUMBER: 3089

DRAWING: 412664243 REVISION: C

H: 24.37

1/2 SPAN: 53.72

TOTAL SPAN: 107.44

ANGLE: 50°

QC 15: MA

DATE: 07/03/08

QTY: 1

don't fit in table jig
over bent

SCRAP MA 07-03-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN PH	DRAWN BY AB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED PH	APPROVED AB	DRAWING NO. D412-664-243	REV. C SHEET 1 OF 3
DATE 06.10.27		TITLE CROSSTUBE ASSEMBLY (412 HI AFT) NTS	
A	01.10.17	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	
C	06.10.27	REMOVE D2856-600-1087, ADD D2732-058 & MAGNOBOND 6398 MS21920-32 WAS MS21920-30	

RELEASED

di 4-28 **AB****PARTS LIST:**

Qty	Part Number	Description
X	D412-664-243	CROSSTUBE ASSEMBLY (412 HIGH AFT)
1	D6009-129	CROSSTUBE
2	D2732-058	RUBBER CUSHION
1	D2896-1	SUPPORT
2	D2856-600-1009	ABRASION STRIP
4	MS21920-28	CLAMP
2	MS21920-32	CLAMP
2	D3189-1	CHAFING SHIELD
A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

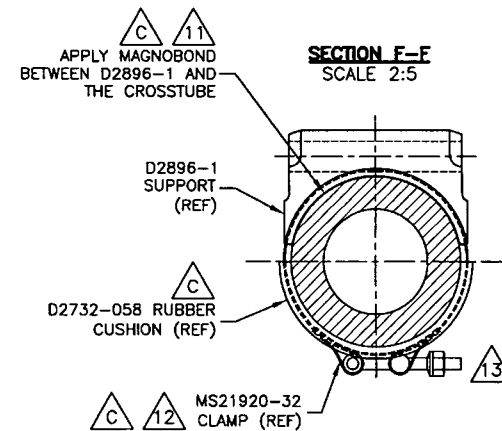
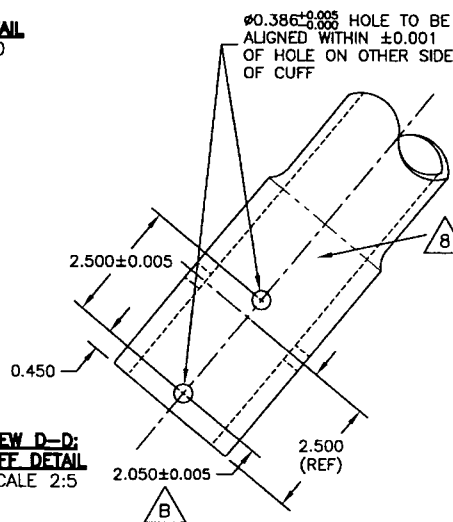
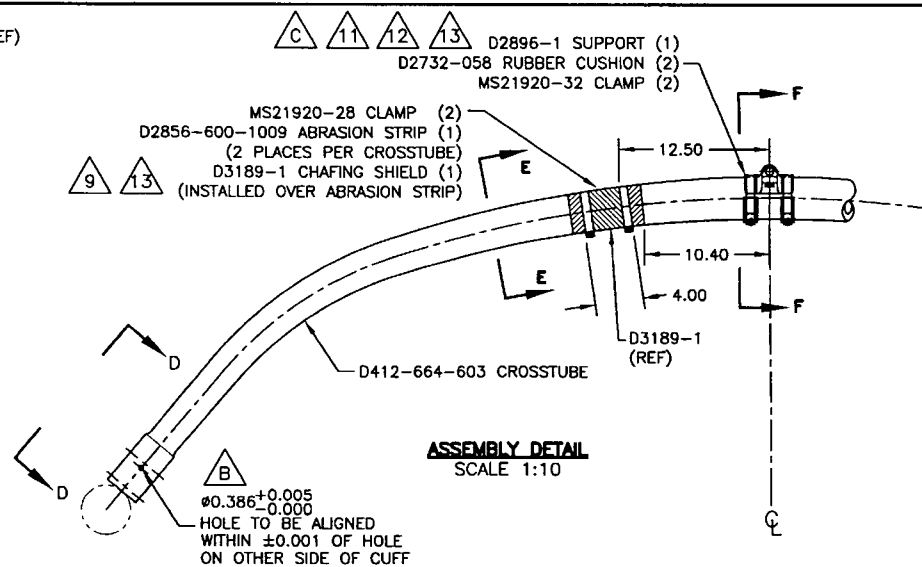
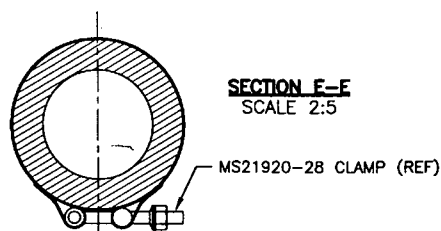
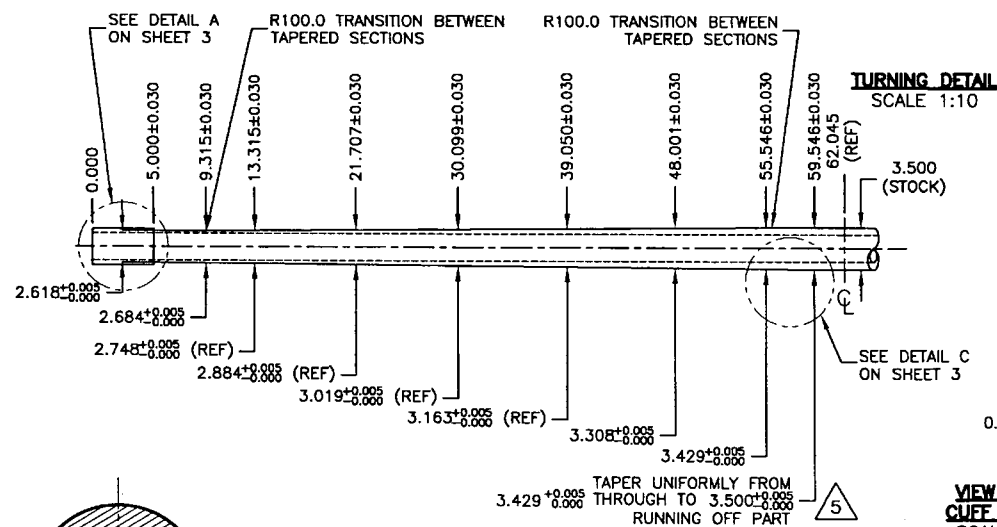
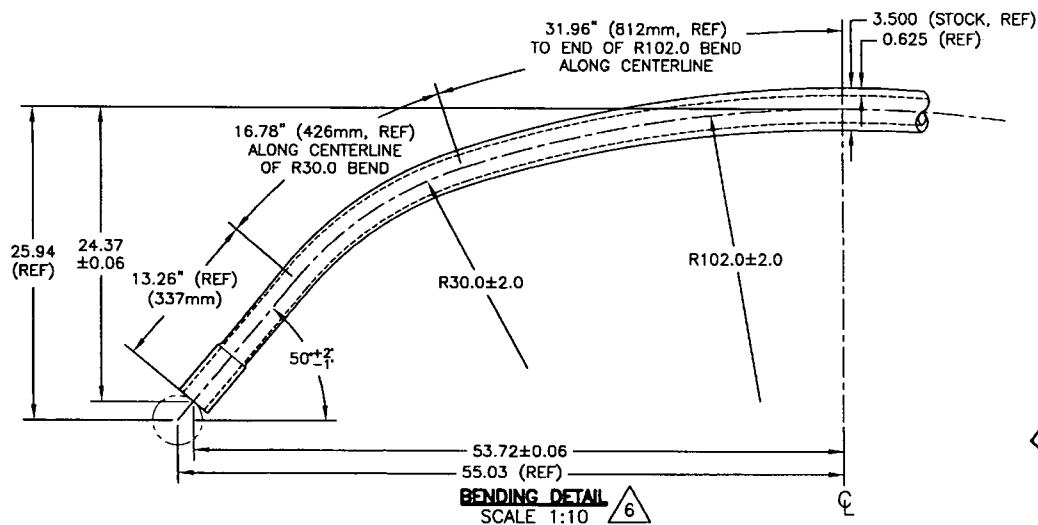
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6009-129
FINISHED LENGTH = 124.09±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-600-1009 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) APPLY A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR PACKAGING.
- 12) INSTALL MS21920-32 CLAMPS WITH D2732-058 RUBBER CUSHIONS TO SECURE D2896-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
- 13) TORQUE CLAMPS 80 TO 100 IN-LB.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
30187

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DART AEROSPACE LTD.

DESIGN
PH

CHECKED
PH

DATE
06.10.27

DRAWN BY
B

APPROVED
H

DART DART AEROSPACE LTD.
WARRICKSLEY, ONTARIO, CANADA

DRAWING NO.
D412-664-243

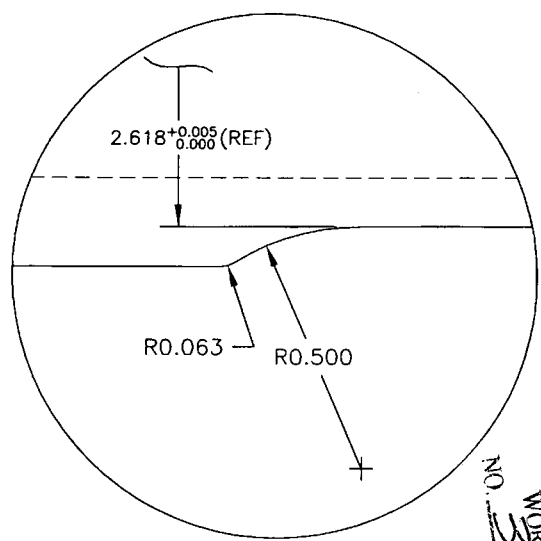
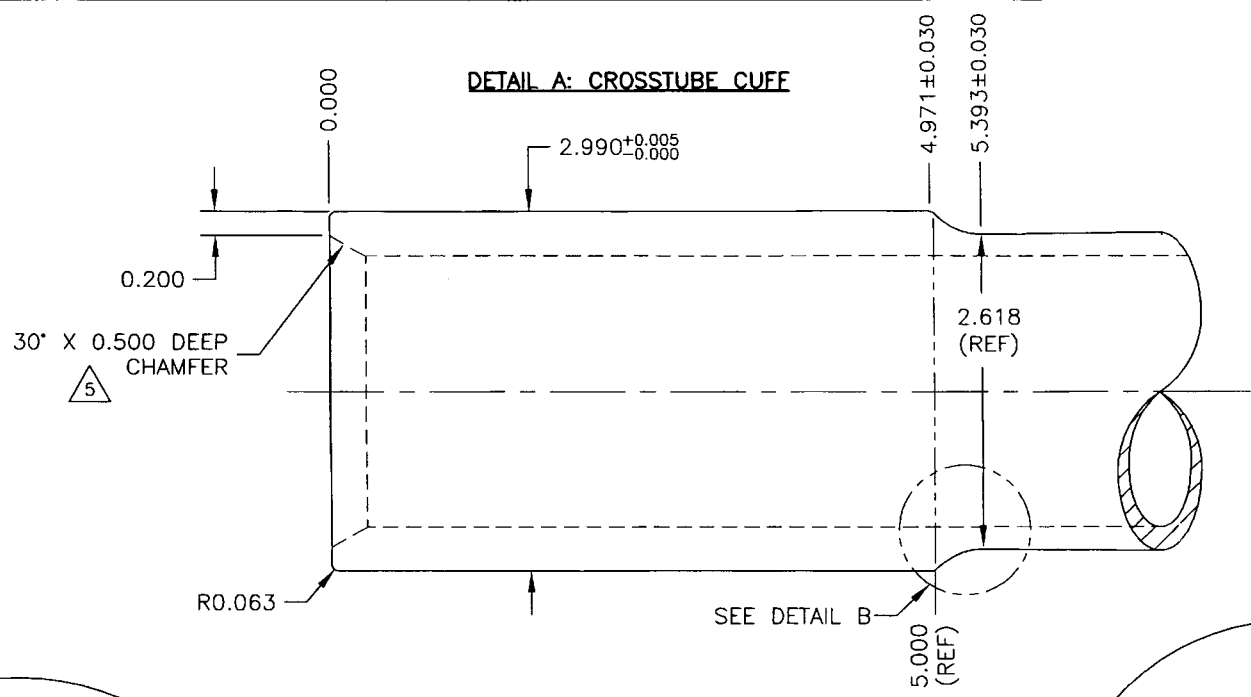
TITLE
CROSSTUBE ASSEMBLY (412 HI AFT)

REV. C
SHEET 2 OF 3
SCALE
1:10

NO. 30187
WORK ORDER
SUBJECT TO AMENDMENT
WITHOUT NOTICE
UNCONTROLLED COPY
ENGINEER'S
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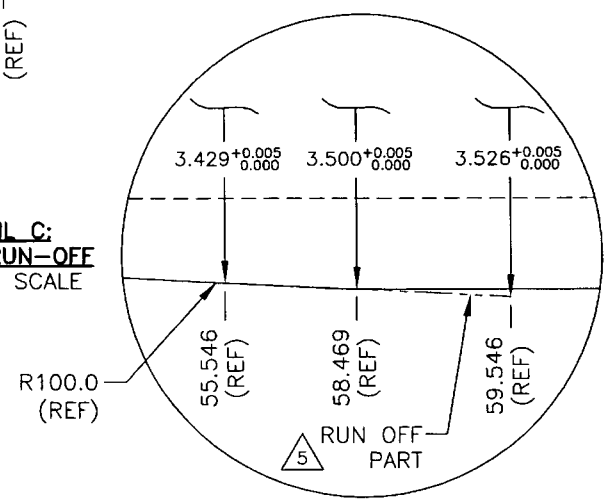
RELEASED
06.11.28

DETAIL A: CROSSTUBE CUFF




**DETAIL B: CUFF
TRANSITION
SCALE 4:1**

**DETAIL C:
TAPER RUN-OFF
NOT TO SCALE**



NO. 30189
WORK ORDER
30189-1
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	CHECKED PH	APPROVED JH			DRAWING NO. D412-664-243	SHEET 3 OF 3
	DATE 06.10.27	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)			SCALE 1:1	